

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019728**Date Inspected:** 08-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 1100**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Qiu Wen.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG components.**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Mr. Shailesh Wadkar was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS)

Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA Inspector observed and/or found the following:

Bay 14:

This QA Inspector observed the following work in progress:

OBG Seg 13AW:

Repair welding of weld joint no: SEG3014AH-120 [Floor Beam (FB) 3204A to K-Plate KP3017A, complete joint penetration (CJP) weld, at panel point (PP) 120.5]. The welder is identified as 045204 and was observed welding in the 3G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC Quality Control (QC) was identified as Liu Feng. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-3G(3F)-FCM-Repair. Repair welding was done as per Welding Repair Report (WRR): B-WR 18959 Rev-0.

The Submerged Arc Welding (SAW) process on weld joint no: SA3231-011 [Deck Panel (DP) 3126B to DP3138B, CJP weld]. The welder is identified as 045265 and was observed welding in the 1G position. ZPMC QC was identified as Zhu Ling. The welding variables recorded by QC appeared to comply with WPS:

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B-T-2211-L2c-S-2.

OBG Seg 13BW:

Repair welding of weld joint no: SEG3014F-192 (FB to K-Plate, CJP weld, at PP121). The welder is identified as 045204 and was observed welding in the 3G position. Welding process was identified as SMAW. ZPMC QC was identified as Liu Feng. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-3G(3F)-FCM-Repair. Repair welding was done as per WRR: B-WR 18969 Rev-0.

Repair welding of weld joint no: SEG3014D-310 (FB to I-rib, CJP weld, at PP121.5). The welder is identified as 201583 and was observed welding in the 3G position. Welding process was identified as Flux Cored Arc Welding (FCAW). ZPMC QC was identified as Wang Xiang Ping. The welding variables recorded by this QC appeared to comply with WPS: 345-FCAW-3G(3F)-FCM-Repair. Repair welding was done as per WRR: B-WR 20060 Rev-0.

OBG Seg 13BW and Seg 13CW:

This QA Inspector observed that Deck Panels; DP3130, DP3131 and DP3132 (for 13BW) and DP3143, DP3144 and DP3145 (for 13CW) were mounted on the respective segments. Fit-up is in progress.

OBG Seg 14W:

The FCAW process on weld joint no: SEG3020AG-008 [Edge Plate (EP) 3030A to Side Panel (SP) 3140A, CJP weld, at PP125 to PP125.5]. The welder is identified as 066734 and was observed welding in the 2G position. ZPMC QC was identified as An Qing Xiang. The welding variables recorded by QC appeared to comply with WPS: B-T-2232-ESAB.

For the above mentioned weld, this QA Inspector observed that the root gap between SP3140A and EP3030A was observed approximately 20mm at PP124.5 to PP125. For this location, ZPMC had placed backing bar. However, it was observed that the fit-up of this backing bar was not correct. This was informed and shown to ZPMC CWI, An Qing Xiang. ZPMC QC agreed to remove this backing bar and do the fit-up again before welding is done at this location of the weld. See attached photos for further details.

For FCAW inprocess welding, this QA Inspector verified the welding parameters and also the date and/or time of those in use. It was observed that for U-rib to Deck Panel welding (for 14W), two FCAW wire spools were not with the date and/or time mentioned on the spools. This was informed to ZPMC QC Zhu Lin. These spools were then replaced by ZPMC.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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## Summary of Conversations:

No significant conversations were reported on this date.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang; phone: 15000422372., who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Wadkar,Sailesh	Quality Assurance Inspector
<b>Reviewed By:</b>	Patterson,Rodney	QA Reviewer

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